

The Claims Defining the Invention are as follows:

1. A method for improving the efficacy and/or transdermal transport of topically administered pharmaceuticals and pharmacologically active compounds, said
5 method comprising the step of incorporating the pharmaceutical or pharmacologically active compound in a carrier comprising an effective amount of one or more complexes of a phosphate derivative of a lipophilic pharmaceutically acceptable compound.
2. The method according to claim 1 wherein the lipophilic pharmaceutically
10 acceptable compound is selected from the group consisting of tocopherol, vitamin A (retinol), vitamin K (menadione), tocotrienols, vitamin D (calciferol) and mixtures thereof.
3. The method according to any one of the preceding claims wherein the complex of
15 a phosphate derivative of a lipophilic pharmaceutically acceptable compound is prepared from a complexing agent selected from the group consisting of arginine, lysine and tertiary substituted amines.
4. The method according to any one of the preceding claims wherein the phosphate
20 derivative of a lipophilic pharmaceutically acceptable compound is selected from the group consisting of monophosphates of the lipophilic pharmaceutically acceptable compound, diphosphates of the lipophilic pharmaceutically acceptable compound and mixtures thereof.
5. The method according to any one of the preceding claims wherein the effective
25 amount of one or more complexes of a phosphate derivative of a lipophilic pharmaceutically acceptable compound is in the range from 1 to 90% w/w of the total weight of the carrier.
6. The method according to claim 5 wherein the effective amount is in the range from 40 to 90% w/w,
7. The method according to claim 6 wherein the effective amount is in the range from 45 to 75 % w/w and
- 30 8. The method according to claim 7 wherein the effective amount is in the range from 50 to 60% w/w.
9. The method according to claim 5 wherein the effective amount is in the range from 1 to 10 % w/w.
10. The method according to claim 9 wherein the effective amount is in the range
35 from 1 to 15%.
11. The method according to claim 10 wherein the effective amount is in the range from 5 to 10% w/w.

12. The method according to any one of the preceding claims wherein the one or more complexes of a phosphate derivative of a lipophilic pharmaceutically acceptable compound is selected from the group consisting of one or more complexes of phosphate derivatives of tocopherol and mixtures thereof.
13. The method according to claim 12 wherein the one or more complexes of a phosphate derivative of a lipophilic pharmaceutically acceptable compound is selected from the group consisting of laurylaminodipropionic acid tocopheryl monophosphate, laurylaminodipropionic acid tocopheryl diphosphate and mixtures thereof.
14. The method according to either of claims 12 or 13 wherein the effective amount of the one or more complexes of phosphate derivatives of tocopherol is in the range of from 0.1 to 10 % (w/w) of the total weight of the carrier.
15. The method according to claim 14 wherein the effective amount is in the range from 5 to 10% w/w.
16. The method according to claim 15 wherein the effective amount is about 7.5% w/w.
17. The method according to any one of the preceding claims wherein the carrier further comprises excipients are selected from the group consisting of solvents, surfactants, emollients, preservatives, colorants, fragrances and mixtures thereof.
18. The method according to claim 1 wherein the carrier comprises 7.50% laurylaminodipropionic acid tocopheryl phosphate, 61.95% deionized water, 5.00% glycerin, 0.05% trisodium EDTA, 0.50% carbomer (Carbopol Ultrez 10), 2.00% Phenoxyol T (cetearyl alcohol and ceteareth-20), 1.00% glyceryl stearate (Emerest 2400), 5.00% isopropyl myristate (Pelemol IPM), 3.50% cetyl ethylhexanoate (Pelemol 168), 3.50% isocetyl behenate (Pelemol ICB), 3.00% oleyl erucate (Cetiol J-600), 0.50% dimethicone (Dow 200,100 cSt.), 5.00% deionized water, 0.50% triethanolamine (99%) and 1.00% Germaben II (propylene glycol, diazolidinyl urea, methylparaben and propylparaben).
19. The method according to any one of the preceding claims wherein the pharmaceuticals and pharmacologically active compounds are selected from the group consisting of morphine, atropine, estradiol and testosterone.
20. A carrier when used in the topical administration of pharmaceuticals or pharmacologically active compounds, the carrier comprising an effective amount of one or more complexes of phosphate derivatives of lipophilic pharmaceutically acceptable compounds.
21. A carrier composition for use in topical administration of pharmaceuticals and pharmacologically active compounds, said carrier comprising an effective amount

of one or more complexes of a phosphate derivative of a lipophilic pharmaceutically acceptable compound.

- 5 22. A pharmaceutical composition comprising one or more pharmaceuticals or pharmacologically active compounds and a carrier comprising an effective amount of one or more complexes of phosphate derivatives of lipophilic pharmaceutically acceptable compounds.
- 10 23. Use of an effective amount of one or more complexes of phosphate derivatives of lipophilic pharmaceutically acceptable compounds together with other excipients in the manufacture of a carrier for use in the topical administration of pharmaceuticals or pharmacologically active compounds.
- 15 24. A method for improving the efficacy and transdermal transport of topically administered pharmaceuticals and pharmacologically active compounds, said method comprising the step of incorporating the pharmaceutical or pharmacologically active compound in a carrier comprising an effective amount of one or more phosphate derivatives of a lipophilic pharmaceutically acceptable compound.
- 20 25. A carrier for use in topical administration of pharmaceuticals and pharmacologically active compounds, said carrier comprising an effective amount of one or more phosphate derivatives of a lipophilic pharmaceutically acceptable compound.